Centro Ecologico per la Distribuzione delle Merci
Centre for Eco-Friendly City Freight Distribution

CEDM

Programme: LIFE III

Start date: October 2005

Coordinator: Municipality of Lucca (IT)

Partners:
Municipality of Lucca (IT)
Regione Toscana (IT)
ENEA (IT)
Softeco Sismat (IT)
Municipality of Aalborg (DK)
MemEx (IT)
COTAS Logistica (IT)
Ministry for Environment and Protection of the Territory (IT)

Keywords: eco-friendly, freight distribution, city logisitics, pollution reduction, last mile

http://www.life-cedm.info
www.research.softeco.it/cedm.aspx

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OVERVIEW

Co-funded under the EU LIFE Environment initiative, CEDM has implemented regulatory, organisational, operational and technological measures to realise and start up the **Centre for Eco-Friendly City Freight Distribution** (**CEDM**) for the **historical centre of Lucca** (IT). The measures are based on city logistics schemes integrated in the broader context of mobility and transport measures, allowing Lucca to achieve **high standards of energy efficiency and environmental quality**.

CEDM has realised, integrated and demonstrated **innovative models and ICT tools** enabling the interaction and **cooperation of the different actors** within the **logistics value chain** – freight transport operators (short/mid/long-range), eco-friendly fleets for city deliveries, local authorities, shops and retail system, mobility operators, etc.

City logistics within historical urban centres

Many European cities and towns have historical centres and sustainability, environment preservation and quality of life have become major concerns.
City Logistics is assuming a transverse role, as it operates within complex interdependencies at the urban level.
New solutions are increasingly being researched, including measures and elements such as freight transit points, on-demand van stop and unload areas, time windows and access 'certificates', van sharing, B2C goods pick-up points and e-lockers, etc.

OBJECTIVES

A mid-sized city with an important historical centre located in **Toscana Region** (IT), **Lucca** has invested relevant resources to achieve significant **reductions of traffic related energy consumption, noxious gases emissions and noise**, and to preserve the quality of the environment and its historical assets by means of specific regulatory initiatives and mobility schemes and the realisation of telematics infrastructures for mobility management, improve-ment of public transport quality and environmental protection

The historical city centre is partly closed to private traffic but not to freight traffic: specific innovative measures are needed to reduce the impact and preserve the quality and sustainability of the urban environment as well as its attractiveness for commerce, service and tourist activities.

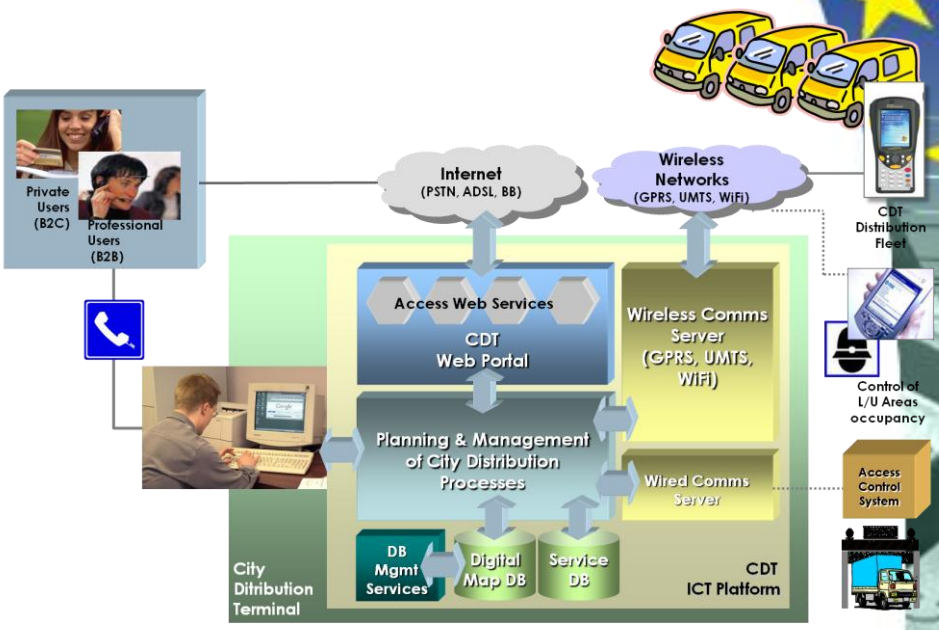
CEDM implemented **innovative city logistics solutions aimed at reducing significantly the impacts of freight traffic in the city centre** (decrease of circulating vehicles, delivery path optimization etc.) **and supply high quality and innovative logistics services to citizens and sector operators** (e.g. shopkeepers, craftmen, etc.).

IMPLEMENTATION

The implementation and pilot operation of CEDM measures in Lucca include:

- a **Centre for Eco-Friendly City Freight Distribution operations** (Centro Ecologico per la Distribuzione delle Merci, CEDM) outside the historical and economical urban area of Lucca, working as a freight transhipment and goods collection point (City Distribution Terminal, CDT);

- a **distributed, internet based e-Services system**, operated in the CEDM and linking all main actors within the city logistics chain – long-/mid-range freight transport operators, city distribution operators, shops and delivery destinations, freight transit points, eCommerce infrastructures, etc. This multi-service architecture operates as a **City Logistics Virtual Agency** providing business-to-business (B2B), business-to-consumer (B2C) and business-to-administration (B2A) services to enable cooperation between the different involved actors and improve the operation of city logistics schemes;



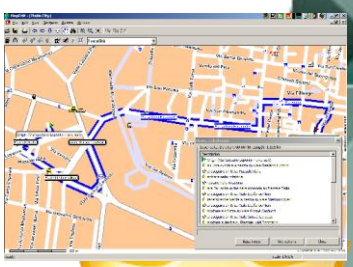
- the use of **eco-compatible freight vehicles and clean fuels for deliveries in the inner historical centre**.

All of these elements are integrated in the general city policy of reducing greenhouse effects and the level of noxious gases emissions and noise, contributing a relevant added value to the efficiency of goods delivery processes and to overall urban sustainability.

RESULTS

CEDM has implemented, started pilot operation and validated the functionality of a logistics base (City Distribution Terminal) for the historical centre of Lucca, demonstrating the functioning of ICT-managed eco-friendly fleets and allowing to:

- reduce commercial and freight traffic congestion (reduction of the total number of vehicles in the historical centre and optimisation of loads and delivery routes);
- reduce environmental pollution (reduction of traffic, adoption zero emission vehicles);
- reduce noise pollution and risk for historical buildings due to vibrations resulting from freight traffic;
- increase pedestrians safety and improve the quality of life for residents, visitors and tourists.



Since Summer 2007, the Lucca CEDM is supported by eMILE™, the complete solution for last-mile freight distribution by Softeco Sismat:

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